

Application No.: 09/930,295

Docket No.: M4065.0184/P184-A

REMARKS

Claims 25-26 and 28-34 are currently pending in the above-identified application. Claim 27 has been cancelled without prejudice or disclaimer to the subject matter recited therein and solely for the purpose of furthering the prosecution of the application. Applicants reserve the right to claim the subject matter of the cancelled claim and other claims in this or any other application.

Claims 25 and 28-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Heo. Reconsideration is respectfully requested. Claim 25 discloses "a semiconductor device package, comprising [] a metal layer formed between said semiconductor device and said dielectric substrate having edges formed by said dicing operation." This is an important feature of the invention. Heo does not teach or suggest the metal layer of the claimed invention. Rather, Heo provides a "multi-layer film" 20 which includes "a first non-conductive film 21, a second non-conductive film 22 and a circuit pattern 26." (col. 4, lines 58-62). Thus, the metal layer of the claimed invention is not disclosed in Heo.

The metal layer 62 in the claimed invention is not the circuit pattern, but a solid layer to stiffen the semiconductor device package and furthermore to be used as a heat sink to dissipate heat from the semiconductor device. In addition, the metal layer may be used as an electrical ground plane. Heo's device, i.e. the multi-layer film, does not anticipate the claimed invention which has a metal layer between the semiconductor device and the dielectric substrate. Claims 28-34 should be allowable along with claim 25 and for other reasons.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Heo in view of Marcantonio. Reconsideration is respectfully requested. Claim 26 should be allowable along with claim 25. Furthermore, Marcantonio does not teach or suggest a metal layer between the semiconductor device and the dielectric substrate but discloses a metal layer "on one side of the dielectric body of the package." (col. 4, lines 48-49). More specifically, Marcantonio provides a "heat spreader" 214 which is disposed on a side

Application No.: 09/930,295

Docket No.: M4065.0184/P184-A

~~opposite to that of both~~ the integrated circuit chip 212 and the dielectric layers 224, 226, 228 (col. 4, lines 41-67). Marcantonio would suffer from the drawbacks of the prior art described in Applicant's specification on page 2, namely, a package without sufficient stiffness.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

Dated: September 3, 2002

Respectfully submitted,

By 

Mark J. Thronson

Registration No.: 33,082

DICKSTEIN SHAPIRO MORIN &
OSHINSKY LLP

2101 L Street NW

Washington, DC 20037-1526

(202) 785-9700

Attorneys for Applicant